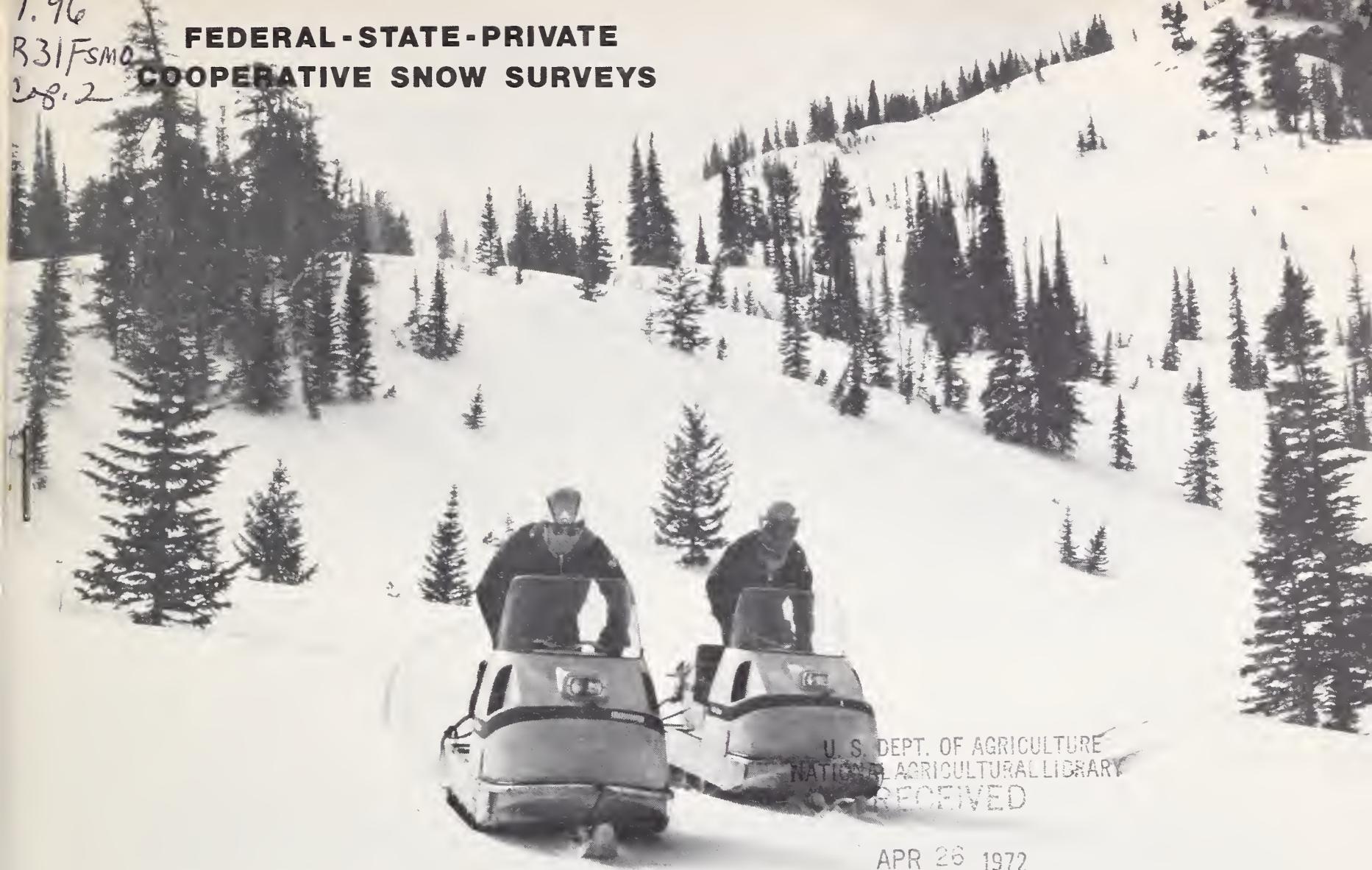


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WATER SUPPLY OUTLOOK FOR MONTANA

Prepared by

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State, and private organizations listed on the inside back cover of this report.

AS OF
MAR. 1, 1972

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters of key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO NUMBER ORC 221-3

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR MONTANA

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

KENNETH E. GRANT

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

|||||

Released by

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SOIL CONSERVATION SERVICE
Bozeman, Montana

In Cooperation with

J. A. ASLESON
DIRECTOR
Montana Agricultural Experiment Station

|||||

Report prepared by

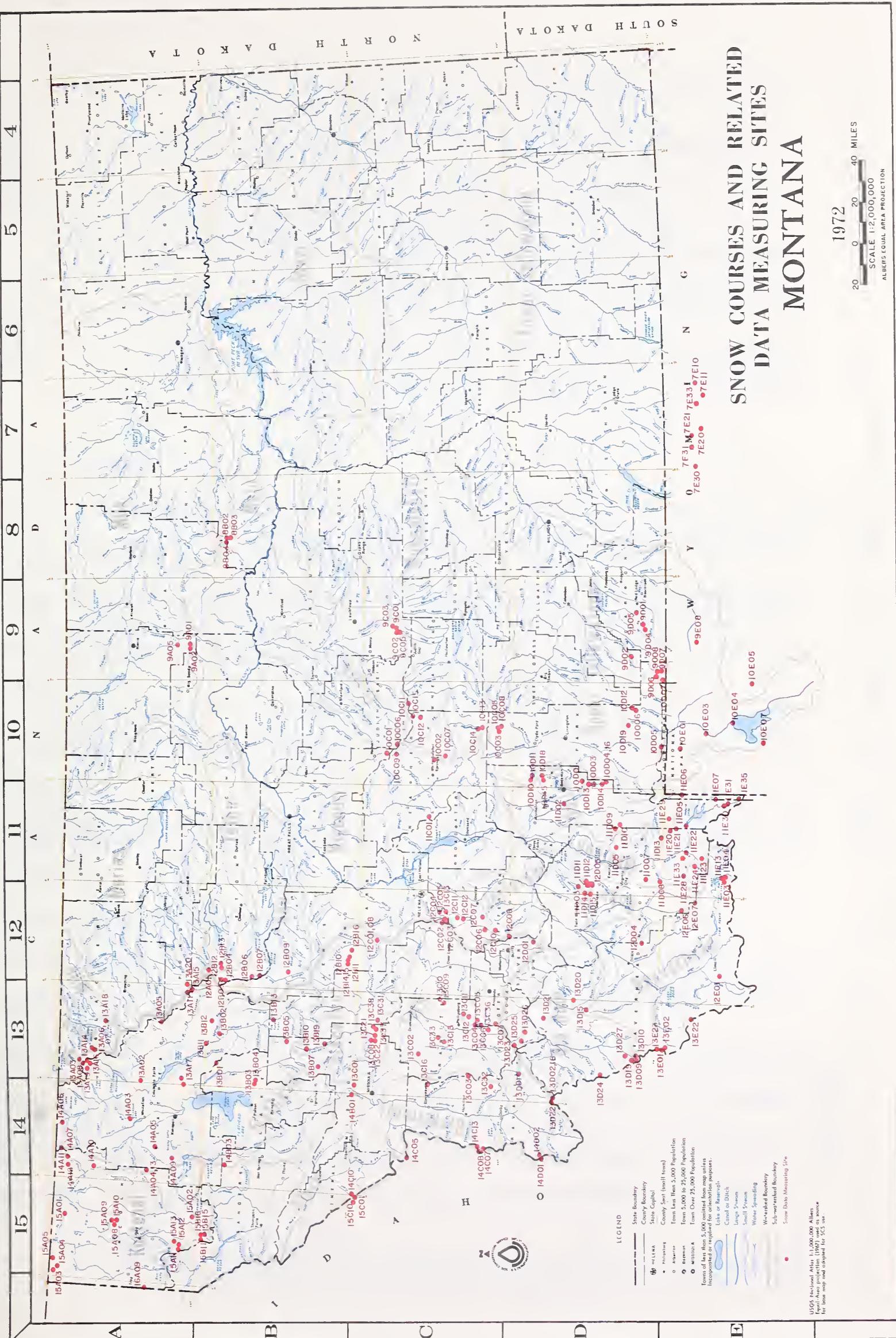
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INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

Dredge Basin & Snow Course	Number	Plav. Sac.	Range	Recd	Date	Record begin	Measuring Dates 1/	Measuring Dates 2/	Record begin	Measuring Dates 1/	Measuring Dates 2/	Record begin	Measuring Dates 1/	Measuring Dates 2/	Record begin	Measuring Dates 1/	Measuring Dates 2/																	
SNOW COURSES																																		
COLUMBIA RIVER BASIN																																		
KOOTENAI RIVER	15A11	5700	6	27N	31W	1969	2,3,4,5,6	1	2,3,4,5,6	1969	2,3,4,5,6	1969	3,4,5	1,12																				
Bald Eagle Peak																																		
Bald Eagle Mountain	15A08	5600	30W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1969	2,3,4,5,6	1969	3,4,5	1																				
Bald Eagle Creek	15A11	5500	36W	1966	3,4,5,6	2	3,4,5,6	2	3,4,5,6	1966	3,4,5,6	1966	3,4,5	1																				
Barne Trillies	15E11	4600	30W	1965	3,4,5,6	2	3,4,5,6	2	3,4,5,6	1965	3,4,5,6	1965	3,4,5	1																				
Bitterroot Creek	15A10	3800	5	25N	30W	1965	3,4,5,6	2	3,4,5,6	1965	3,4,5,6	1965	3,4,5,6	1																				
Brush Creek	14A04	5000	12	30N	26W	1937	3,4,5	1,2	3,4,5	1,2	3,4,5	1,2	3,4,5	1,2																				
Brush Creek Timber	14A13	5000	12	28N	26W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Cedar Grove	14A04	4100	35	28N	26W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Davis Creek	14A05	5400	18	37N	32W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Garver Creek	14A05	4250	18	37N	32W	1964	3,4,5	1	3,4,5	1	3,4,5	1	3,4,5	1																				
Graves Creek	14A11	4300	1	38N	32W	1964	3,4,5	1	3,4,5	1	3,4,5	1	3,4,5	1																				
Gravina Lake	14A03	6750	7	22N	18W	1962	1,2,3,4,5,6	6	1,2,3,4,5,6	1962	1,2,3,4,5,6	1962	1,2,3,4,5,6	1																				
Keefer Creek	14A03	6450	10	20N	15W	1959	2,3,4,5,6	1	2,3,4,5,6	1959	2,3,4,5,6	1959	2,3,4,5,6	1																				
Lost Soul Creek	14A11	4800	24	23N	18W	1969	2,3,4,5,6	1	2,3,4,5,6	1969	2,3,4,5,6	1969	2,3,4,5,6	1																				
Lost Soul Creek	14A11	5100	5	22N	18W	1969	2,3,4,5,6	1	2,3,4,5,6	1969	2,3,4,5,6	1969	2,3,4,5,6	1																				
Mabel Creek	14A12	6000	5	36N	29W	1937	3,4,5	1,2	3,4,5	1,2	3,4,5	1,2	3,4,5	1,2																				
Mabel Creek Timber	14A12	6050	5	36N	29W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A12	6050	5	37N	24W	1937	3,4,5,6	1	3,4,5,6	1	3,4,5,6	1	3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N	24W	1969	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1	2,3,4,5,6	1																				
Mabel Creek Timber	14A07	5450	20	37N</td																														

MONTANA WATER SUPPLY OUTLOOK

March 1, 1972

COLUMBIA RIVER DRAINAGE

Snow - Almost every snow course in the Columbia River drainage has a higher water content than any previously recorded on this date. The snowpack is heavy in all drainages and at all elevations. Over the entire drainage, the snow is about 30 percent greater than a year ago and 160 percent average.

Soil moisture is near to a little below average in the Kootenai and Flathead River drainages, and a little less than average in the Bitterroot and Clark Fork drainages.

Streamflow - About two-thirds of the streams forecasted are expected to have a larger volume runoff than any previously recorded. Streams with volumes a little below previous highs are generally in the upper Clark Fork area above the Blackfoot River. Changes that take place in the low elevation snowpack during the next six or seven weeks will have a significant bearing on peak flow. Even with ideal conditions, peak flows are expected to be relatively high.



MISSOURI RIVER DRAINAGE

Snow - The snowpack varies from a little above average in the lower Gallatin drainage, Bear Paw and Big Snowy Mountains, to maximum of record on most courses in the Sun-Marias-Teton area, Missouri main stem, and the western portion of the Jefferson River drainage.

Moisture stored in the soil beneath the snowpack is above average in the Beaverhead, Madison and upper Gallatin drainages, and generally near average elsewhere, with the exception of below average amounts in lower portions of the Milk, Marias, Judith and Musselshell drainages.

Streamflow - Most streams in the Sun-Marias-Teton, St. Mary, Smith and Judith drainages are forecast to produce near record volumes of water this spring and summer. Streamflow volumes will be large from the Jefferson and Madison River areas, but less than previous records.

In the Gallatin area, flows are expected to be in the 115-125 percent range. Peak flows from the heavy snowpack areas will be influenced by changes in low elevation snowpack during the next six to seven weeks.

YELLOWSTONE RIVER DRAINAGE

Snow - The snowpack is well above average in most of the Yellowstone headwaters, except for a little above average in the Crazy Mountains. Snowpack is heavy in much of the Big Horn River drainage.

Moisture stored in the soil beneath the snowpack is generally above average in the southern half, and near average in the northern half of the drainage.

Streamflow - Streamflow is forecast near the large volume recorded last season on the Big Horn River and Yellowstone River above the Big Horn. Downstream volumes are forecast to be about the fourth largest of record.



SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average
<u>COLUMBIA RIVER DRAINAGE</u>			
Kootenai	19	136	158
Flathead	22	134	160
Upper Clark Fork	26	138	167
Lower Clark Fork	11	131	160
Bitterroot	11	112	136
<u>MISSOURI RIVER DRAINAGE</u>			
Jefferson	36	108	158
Madison	18	98	136
Gallatin	13	83	117
Missouri Main Stem	11	127	171
Judith-Musselshell	8	113	143
Marias-Teton-Sun	5	121	158
Milk (Headwaters)	3	114	146
Milk (Cypress Hills)	4	68	130
<u>YELLOWSTONE RIVER DRAINAGE</u>			
Yellowstone	26	110	138
Little Bighorn	7	92	121
Average based on 1953-67 period.			
-3-			



RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average

COLUMBIA RIVER BASIN

Flathead	Hungry Horse	3,428.0	1,702.0	2,111.0	2,269.0
	Flathead Lake	1,791.0	911.1	926.7	963.0
	Camas (4)	45.2	28.3	21.5	28.6
	Mission Valley (8)	100.3	27.2	41.7	32.7
Clark Fork	Georgetown Lake	31.0	27.3	26.6	23.6
	Noxon Rapids	334.6	295.3	331.4	293.4
	Nevada Creek	12.6	4.1	8.4	4.9
Bitterroot	Como	34.9	8.6	11.7	11.6
	Painted Rocks	31.7	16.4	25.5	20.9

MISSOURI RIVER BASIN

Beaverhead	Clark Canyon	328.9	141.7	137.7	129.5
	Lima	84.0	49.9	42.1	22.9
Ruby	Ruby	38.8	28.7	29.6	26.5
Madison	Hebgen Lake	377.5	250.3	266.5	170.7
	Ennis Lake	41.0	39.1	34.8	37.7
Gallatin	Middle Creek	8.0	3.7	4.5	3.6
Missouri	Canyon Ferry	2,043.0	1,594.0	1,577.0	1,562.0
	Hauser & Helena	61.9	62.5	61.9	57.1
	Lake Helena	10.4	10.7	10.4	8.8
	Holter Lake	81.9	29.9	80.6	54.3
	Smith River	10.7	4.0	6.1	6.3
	Bair	7.0	3.0	5.3	4.4
	Martinsdale	23.1	7.8	9.3	6.4
	Deadman's Basin	72.2	46.4	55.0	46.1
	Fort Peck	19,410.0	16,180.0	16,330.0	10,900.0
Sun	Gibson	105.0	42.5	42.9	49.4
	Willow Creek	32.3	21.0	22.9	20.8
	Pishkun	32.0	17.4	17.0	17.7
Marias	Lower Two Medicine	16.6		-	0.0
	Four Horns	19.2		-	12.1
	Swift	30.0	15.3	17.1	19.7
	Lake Frances	112.0	67.9	86.0	83.5
	Tiber	1,347.0	487.0	483.4	628.0
Milk	Fresno	127.2	37.4	80.2	59.4
	Nelson	66.8	34.9	48.3	41.0
	Lake Sherburne	66.1		22.0	20.6
Yellowstone	Mystic Lake	20.8	7.0	5.9	7.7
	Tongue River	68.0		47.5	22.8
	Cooney	27.5	12.8	17.3	14.3
Bighorn	Bighorn Lake	1,356.0	921.5	912.5	586.8



SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +

COLUMBIA RIVER BASIN

Kootenai

Baree Trail	3800	48	7.5	2/29	6.7	6.4	6.4
Murphy Lake R. S.	3000	48	22.6	3/02	20.4	20.6	20.3
Raven R. S.	3050	48	23.0	3/01	15.8	16.3	20.6

Flathead

Desert Mountain	5600	54	8.4	3/02	7.0	8.5	7.3
Marias Pass	5250	54	6.5	2/25	4.8	6.7	5.4

Clark Fork

Black Pine	7100	48	10.0	2/29	7.4	7.8	7.4
Lubrecht Forest	4100	48	26.8	3/01	15.7	16.4	-
Seeley Lake R. S.	4030	48	11.9	3/03	8.2	11.0	7.8
Skalkaho Summit	7260	48	10.8	2/29	8.9	10.2	9.8

Bitterroot

Gibbons Pass	7100	48	7.1	3/01	2.9	6.0	5.3
Lolo Pass	5250	48	10.6	2/29	3.6	6.5	6.3

MISSOURI RIVER BASIN

Beaverhead

Lakeview	6700	48	15.3	3/01	14.9	6.4	7.7
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Madison

West Yellowstone	6700	48	6.5	2/27	2.7	2.9	2.5
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Gallatin

Bridger Bowl	7250	48	17.0	2/29	16.0	16.6	16.2
College Site No. 2	4856	54	14.5	3/03	13.7	16.1	13.5
Lick Creek	6860	48	18.8	3/01	17.2	17.2	16.7
Twenty-One Mile	7150	48	10.0	2/27	5.6	5.8	3.6

Missouri Main Stem

Kings Hill	7420	48	11.8	3/02	4.4	5.0	6.7
Stemple Pass	6350	48	5.9	3/01	3.8	4.0	4.0

Milk

Beaver Creek	3950	48	10.9	2/28	13.3	15.5	-
Rocky Boy	4700	36	10.1	2/28	6.0	7.5	-

Yellowstone

Battle Ridge	6020	48	17.6	2/24	13.9	16.6	13.6
Northeast Entrance	7350	48	9.4	2/29	3.8	5.1	6.1



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year

COLUMBIA RIVER BASIN

FISHER RIVER

Libby (near)	435	146	Apr-Sept	298
	415	147	Apr-July	281

KOOTENAI RIVER

Libby (at)	10450	130	Apr-Sept	8966
	9300	135	Apr-July	7825

YAAK RIVER

Troy (near)	765	133	Apr-Sept	573
	750	136	Apr-July	549

KOOTENAI RIVER

Leonia (at)	12100	132	Apr-Sept	10484
	10900	135	Apr-July	9224
	8700	135	Apr-June	7416

RACETRACK CREEK

Anaconda (near)	49.0	144	Apr-Sept	34.1
	40.0	145	Apr-July	27.6

FLINT CREEK

Boulder Creek (below) (3)	99.0	142	Apr-Sept	69.6
	80.0	145	Apr-July	55.1

MIDDLE FORK ROCK CREEK

Philipsburg (near)	120	163	Apr-Sept	73.4
	110	166	Apr-July	66.2

NEVADA CREEK

Finn (near)	32.0	154	Apr-Sept	20.7
	30.0	155	Apr-July	19.3

BLACKFOOT RIVER

Bonner (near)	1410	140	Apr-Sept	1283
	1300	143	Apr-July	1181
	1130	143	Apr-June	1045

CLARK FORK RIVER

Milltown (above) (4)	1170	155	Apr-Sept	694
	1050	160	Apr-July	614
	910	162	Apr-June	532

CLARK FORK RIVER

Missoula (above)	2580	146	Apr-Sept	1980
	2350	150	Apr-July	1795
	2040	151	Apr-June	1577

(3) Sum Flint Creek at Maxville and Boulder Creek at Maxville.
 (4) Difference in observed flow Clark Fork above Missoula and Blackfoot near Bonner.



STREAMFLOW FORECASTS

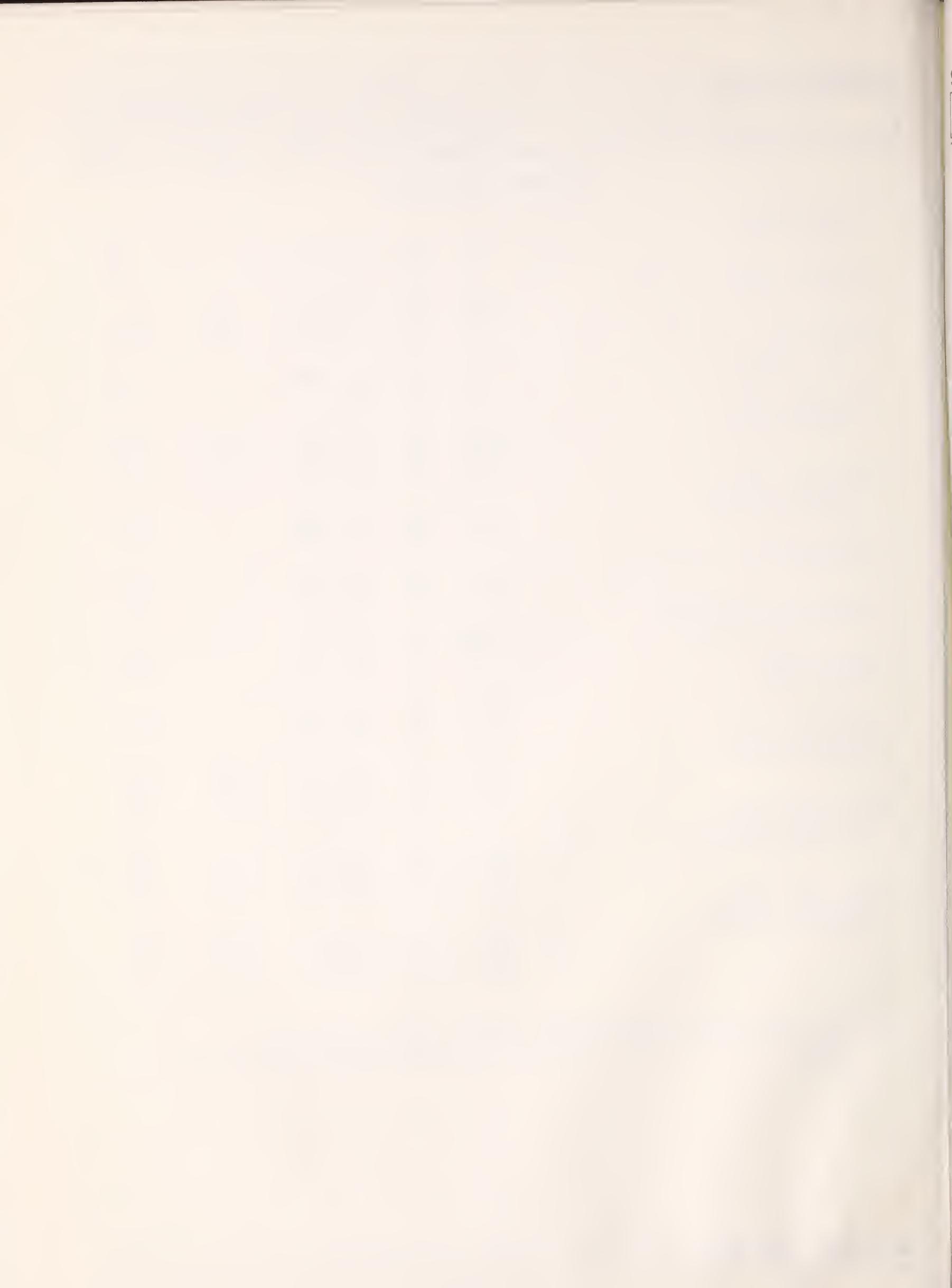
BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year
WEST FORK BITTERROOT RIVER				
Conner (near) (5)	265	156	Apr-Sept	170
	250	158	Apr-July	158
EAST FORK BITTERROOT RIVER				
Conner (near)	250	147	Apr-Sept	170
	230	149	Apr-July	154
BITTERROOT RIVER				
Darby (near)	855	153	Apr-Sept	780
	800	155	Apr-July	738
	690	152	Apr-June	661
SKALKAHO CREEK				
Hamilton (near)	77.0	138	Apr-Sept	55.8
	68.5	140	Apr-July	48.9
BURNT FORK CREEK				
Stevensville (near) (10)	52.0	152	Apr-Sept	42.2
	45.0	152	Apr-July	38.1
BITTERROOT RIVER				
Missoula (at) (6)	2120	145	Apr-Sept	1466
	2000	147	Apr-July	1360
	1730	147	Apr-June	1175
CLARK FORK RIVER				
Missoula (below)	4700	146	Apr-Sept	3229
	4350	148	Apr-July	2932
	3770	149	Apr-June	2525
ST. REGIS RIVER				
St. Regis (near)	510	154	Apr-Sept	332
	500	158	Apr-July	316
CLARK FORK RIVER				
St. Regis (at)	6680	152	Apr-Sept	5448
	6150	154	Apr-July	5037
	5300	154	Apr-June	4440
NORTH FORK FLATHEAD RIVER				
Columbia Falls (near)	2700	133	Apr-Sept	2023
	2500	135	Apr-July	1846
	2100	135	Apr-June	1562
MIDDLE FORK FLATHEAD RIVER				
West Glacier (near)	2400	124	Apr-Sept	2285
	2250	126	Apr-July	2114
	1900	125	Apr-June	1776
SOUTH FORK FLATHEAD RIVER				
Columbia Falls (near) (7)	3250	138	Apr-Sept	2816
	3100	139	Apr-July	2685
	2700	137	Apr-June	2359
				1967

(5) Adjusted for storage in Painted Rocks Reservoir.

(6) Difference in observed flow Clark Fork above and below Missoula.

(7) Adjusted for storage in Hungry Horse Reservoir.

(10) Adjusted for diversion into Sunset Highline Canal.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
WEST FORK BITTERROOT RIVER				
Conner (near) (5)	265	156	Apr-Sept	170
	250	158	Apr-July	158
EAST FORK BITTERROOT RIVER				
Conner (near)	250	147	Apr-Sept	170
	230	149	Apr-July	154
BITTERROOT RIVER				
Darby (near)	855	153	Apr-Sept	780
	800	155	Apr-July	738
	690	152	Apr-June	661
SKALKaho CREEK				
Hamilton (near)	77.0	138	Apr-Sept	55.8
	68.5	140	Apr-July	48.9
BURNT FORK CREEK				
Stevensville (near) (10)	52.0	152	Apr-Sept	42.2
	45.0	152	Apr-July	38.1
BITTERROOT RIVER				
Missoula (at) (6)	2120	145	Apr-Sept	1466
	2000	147	Apr-July	1360
	1730	147	Apr-June	1175
CLARK FORK RIVER				
Missoula (below)	4700	146	Apr-Sept	3229
	4350	148	Apr-July	2932
	3770	149	Apr-June	2525
ST. REGIS RIVER				
St. Regis (near)	510	154	Apr-Sept	332
	500	158	Apr-July	316
CLARK FORK RIVER				
St. Regis (at)	6680	152	Apr-Sept	5443
	6150	154	Apr-July	5037
	5300	154	Apr-June	4440
NORTH FORK FLATHEAD RIVER				
Columbia Falls (near)	2700	133	Apr-Sept	2023
	2500	135	Apr-July	1846
	2100	135	Apr-June	1562
MIDDLE FORK FLATHEAD RIVER				
West Glacier (near)	2400	124	Apr-Sept	2285
	2250	126	Apr-July	2114
	1900	125	Apr-June	1776
SOUTH FORK FLATHEAD RIVER				
Columbia Falls (near) (7)	3250	138	Apr-Sept	2816
	3100	139	Apr-July	2685
	2700	137	Apr-June	2359
				1967

(5) Adjusted for storage in Painted Rocks Reservoir.

(6) Difference in observed flow Clark Fork above and below Missoula.

(7) Adjusted for storage in Hungry Horse Reservoir.

(10) Adjusted for diversion into Sunset Highline Canal.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
FLATHEAD RIVER				
Columbia Falls (at) (7)	8600	133	Apr-Sept	7498
	8050	134	Apr-July	7004
	6950	134	Apr-June	6005
SWAN RIVER				
Big Fork (near)	860	124	Apr-Sept	688
	760	125	Apr-July	607
	620	125	Apr-June	496
FLATHEAD RIVER				
Polson (near) (8)	10400	135	Apr-Sept	9382
	9700	135	Apr-July	8774
	8200	134	Apr-June	7543
CLARK FORK RIVER				
Plains (near) (8)	18000	145	Apr-Sept	15439
	16500	144	Apr-July	14368
	14000	143	Apr-June	12443
THOMPSON RIVER				
Thompson Falls (near)	380	134	Apr-Sept	283
	350	138	Apr-July	253
PROSPECT CREEK				
Thompson Falls (at)	220	145	Apr-Sept	152
	210	146	Apr-July	143
CLARK FORK RIVER				
Whitehorse Rapids (at) (9)	20000	143	Apr-Sept	13987
	18500	145	Apr-July	12787
	15500	142	Apr-June	10953

(7) Adjusted for storage in Hungry Horse Reservoir.

(8) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.

(9) Adjusted for storage in Hungry Horse Reservoir, Flathead Lake and Noxon Rapids Reservoir.



STREAMFLOW FORECASTS

BASIN, STREAM and or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year

MISSOURI RIVER BASIN

BEAVERHEAD RIVER

Grant (near) (11) (12)	180	170	Apr-Sept	297	106
	165	183	Apr-July	263	90.0

RUBY RIVER

Alder (near)	97.0	121	Apr-Sept	80.0	
	84.0	125	Apr-July	67.0	

BIG HOLE RIVER

Melrose (near)	970	140	Apr-Sept	690	
	900	140	Apr-July	642	

BIRCH CREEK

Glen (near)	18.8	144	Apr-Sept	13.1	
	16.0	145	Apr-July	11.0	

BOULDER RIVER

Boulder (near)	117	148	Apr-Sept	78.9	
	112	148	Apr-July	75.5	

JEFFERSON RIVER

Sappington (at)	1440	152	Apr-Sept	948	
	1290	151	Apr-July	857	

WILLOW CREEK

Harrison (near)	30.5	198	Apr-Sept	15.5	
	27.5	194	Apr-July	14.2	

MADISON RIVER

West Yellowstone (near)	266	125	Apr-Sept	212	
	204	127	Apr-July	160	

MADISON RIVER

Grayling (near) (13)	640	149	Apr-Sept	686	430
	520	154	Apr-July	544	337

MADISON RIVER

McAllister (near) (14)	1070	146	Apr-Sept	1256	734
	870	148	Apr-July	1003	587

GALLATIN RIVER

Gateway (near)	567	123	Apr-Sept	731	461
	490	125	Apr-July	623	393

BRIDGER CREEK

Bozeman (near)	25.1	122	Apr-Sept	39.1	20.5
	23.5	122	Apr-July	37.8	19.3

(11) Adjusted for storage in Lima Reservoir.

(12) Adjusted for storage in Clark Canyon Reservoir.

(13) Adjusted for storage in Hebgen Lake.

(14) Adjusted for storage in Hebgen and Ennis Lakes.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average
HYALITE CREEK					
Bozeman (near)(15)	44.0	117	Apr-Sept	37.4	
	38.5	118	Apr-July	32.5	
GALLATIN RIVER					
Logan (at)	585	123	Apr-Sept	473	
	505	126	Apr-July	401	
MISSOURI RIVER					
Toston (at)(16)	3130	149	Apr-Sept	3222	2105
	2735	149	Apr-July	2815	1836
SHEEP CREEK					
White Sulphur Springs (near)	32.0	174	Apr-Sept	18.4	
	28.0	175	Apr-July	16.0	
SUN RIVER					
Gibson Dam (at)(17)	810	134	Apr-Sept	746	604
	750	135	Apr-July	689	555
BELT CREEK					
Monarch (near)	205	188	Apr-Sept	109	
	190	190	Apr-July	100	
MISSOURI RIVER					
Fort Benton (at)(18)	5100	154	Apr-Sept	3321	
	4450	157	Apr-July	2834	
TWO MEDICINE CREEK					
Browning (near)(19)	340	133	Apr-Sept	256	
	325	133	Apr-July	245	
BADGER CREEK					
Browning (near)	170	128	Apr-Sept	133	
	150	129	Apr-July	116	
CUT BANK CREEK					
Cut Bank (at)	168	140	Apr-Sept	120	
	155	140	Apr-July	111	
MARIAS RIVER					
Shelby (near)(20)	860	142	Apr-Sept	602	604
	830	143	Apr-July	586	581

(15) Adjusted for storage in Middle Creek Reservoir.

(16) Adjusted for storage in Hebgen and Ennis Lakes and Clark Canyon Reservoir.

(17) Adjusted for storage in Gibson Reservoir and diversions.

(18) Adjusted for storage in Canyon Ferry Reservoir.

(19) Adjusted for storage in Two Medicine Reservoir and diversions into Two Medicine Canal.

(20) Adjusted for storage in Two Medicine, Four Horns, Lake Frances and Swift Reservoirs.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year
MISSOURI RIVER				
Virgelle (at) (21)	6000	148	Apr-Sept	4036
	5400	154	Apr-July	3511
SOUTH FORK JUDITH RIVER				
Utica (near)	22.3	178	Apr-Sept	12.5
	21.0	180	Apr-July	11.7
MISSOURI RIVER				
Landusky (near) (21)	6650	148	Apr-Sept	4484
	5950	153	Apr-July	3889
NORTH FORK MUSSELSHELL RIVER				
Delpine (near)	9.3	169	Apr-Sept	5.5
	8.1	172	Apr-July	4.7
SOUTH FORK MUSSELSHELL RIVER				
Martinsdale (above)	80.0	173	Apr-Sept	46.2
	76.0	173	Apr-July	44.0
MISSOURI RIVER				
Fort Peck Dam (below) (22)	6800	158	Apr-Sept	4312
	6100	159	Apr-July	3824
MILK RIVER				
Eastern Crossing (at)	297	106	Mar-Sept	281
MISSOURI RIVER				
Wolf Point (near) (22)	7300	156	Apr-Sept	4683
	6600	158	Apr-July	4168
MISSOURI RIVER				
Williston, N. D. (near) (29)	16800	153	Apr-Sept	10998
	15100	154	Apr-July	9823

SASKATCHEWAN RIVER BASIN

ST. MARY RIVER

Babb (near) (30)	595	121	Apr-Sept	492
	525	123	Apr-July	427

(21) Adjusted for storage in Canyon Ferry and Tiber Reservoirs.

(22) Adjusted for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.

(29) Adjusted for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Bill, Boysen and Yellowtail Reservoirs. Sum Yellowstone River near Sidney and Missouri River near Culbertson.

(30) Adjusted for storage in Lake Sherburne.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year

YELLOWSTONE RIVER BASIN

YELLOWSTONE RIVER

Corwin Springs (at)	2600	138	Apr-Sept	2689	1880
	2200	140	Apr-July	2239	1575

YELLOWSTONE RIVER

Livingston (near)	2950	139	Apr-Sept		2122
	2470	140	Apr-July		1769

BOULDER RIVER

Big Timber (at)	460	132	Apr-Sept		347
	435	133	Apr-July		327

STILLWATER RIVER

Absarokee (near)(25)	750	135	Apr-Sept		558
	650	137	Apr-July		474

CLARKS FORK RIVER

Belfry (near)	820	140	Apr-Sept		582
	730	138	Apr-July		530

ROCK CREEK

Red Lodge (near)	148	140	Apr-Sept	142	106
	120	146	Apr-July	108	82.1

YELLOWSTONE RIVER

Billings (at)	5550	140	Apr-Sept	5526	3944
	4800	141	Apr-July	4681	3400

BIG HORN RIVER

St. Xavier (near)(26)	2500	145	Apr-Sept	2415	1719
	2350	145	Apr-July	2189	1625

LITTLE BIG HORN RIVER

Lodgegrass (near)(28)	157	128	Apr-Sept		123
	140	128	Apr-July		109

YELLOWSTONE RIVER

Miles City (at)(27)	8350	143	Apr-Sept		5850
	7550	146	Apr-July		5177

YELLOWSTONE RIVER

Sidney (near)(27)	9300	153	Apr-Sept		6069
	8400	154	Apr-July		5454

(25) Adjusted for storage in Mystic Lake.

(26) Adjusted for storage in Buffalo Bill, Boysen, Bull Lake and Yellowtail Reservoirs.

(27) Adjusted for storage in Buffalo Bill, Boysen and Yellowtail Reservoirs.

(28) Sum Little Big Horn below Pass Creek and Lodgegrass Creek near Wyola.



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
NAME	Elevation					Average

COLUMBIA RIVER BASINKOOTENAI RIVER

Bald Eagle Peak	5700	2/28	194	81.6	64.0	-
Banfield Mountain	5600	3/02	93	34.0	26.9	-
Banfield Mountain Pillow	5600	3/02	SP	28.5	23.1	-
Baree Creek	5500	2/29	158	64.5	48.0	43.5
Baree Midway	4600	2/29	134	53.9	38.8	33.8
Baree Trail	3800	2/29	43	17.4	13.0	8.2
Bear Mountain	5400	3/01	190	80.3	61.1	-
Bristow Creek	3900	3/02	50	17.6	14.0	14.5
Brush Creek	5000	2/29	50	16.8	11.4	11.7
Brush Creek Timber	5000	2/29	44	15.0	10.1	10.4
Cedar Grove	4100	2/28	53	18.7	12.0	14.0
Davis Creek	5400	2/29	86	32.1	27.6	-
Fernie	3500	2/25	46	14.4	9.2	8.6
Field	4200	2/27	40	9.6	6.6	5.9
Garver Creek	4250	2/29	44	14.2	13.3	12.5
Garver Creek Pillow	4250	2/29	SP	13.3	12.0	-
Glacier	4100	3/03	117	36.6	28.1	25.2
Graves Creek	4300	3/03	73	26.8	21.4	17.0
Gray Creek	5100	2/29	73	25.5	18.2	16.0
Halverson Creek	4850	3/01	133	57.2	46.2	-
Hawkins Lake	6450	2/29	112	40.3	32.3	-
Hawkins Lake Pillow	6450	2/29	SP	37.4	33.7	-
Keeler Creek	3300	3/01	54	20.6	14.9	19.0
Kicking Horse	5400	2/27	68	18.6	14.3	13.4
Kimberley	3800	2/27	42	11.8	9.4	8.0
Lost Soul	4800	3/02	62	22.8	17.3	-
Marble Canyon	5000	3/02	87	22.8	16.8	12.7
Morrissey Ridge	6100	2/28	115	39.6	27.9	25.6
New Fernie	4100	2/25	70	23.0	15.7	13.6
Poorman Creek	5100	2/28	125	52.4	34.6	-
Poorman Creek Pillow	5100	2/28	SP	44.4	35.0	-
Red Mountain	6000	2/29	78	27.1	20.0	17.4
Sinclair Pass	4500	3/02	41	10.3	7.2	5.6
Stahl Peak	6050	3/03	131	49.9	41.1	-
Sullivan Mine	5100	2/29	60	18.3	15.5	12.4
Upper Elk River	4400	2/28	46	13.0	7.1	7.4
Weasel Divide	5450	3/03	127	49.5	37.9	31.2

SP - Snow pillow observation - water content only.



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
NAME	Elevation					Average

FLATHEAD RIVER

Bassoo Peak	5150	3/01	47	16.2	12.6	10.2
Beaver Lake	5900	3/08	101	39.2	28.8	20.0
Big Creek	6750	2/29	135	51.8	47.8	39.2
Camp Misery	6400	3/01	142	57.0	48.7	41.0
Desert Mountain	5600	3/02	63	21.7	16.2	14.0
Fatty Creek	5500	2/29	78	31.1	23.8	19.6
Griffin Creek Divide	5150	2/29	52	17.5	12.8	11.3
Gunsight Lake	6300	3/08	140	55.0	49.4	36.0
Hell Roaring Divide	5770	3/01	115	43.3	31.3	27.5
Holbrook	4530	3/08	54		11.8	9.9
Kishenehn	3890	3/02	43	14.5	10.4	9.3
Logan Creek	4300	2/29	36	10.6	8.9	8.2
Marias Pass	5250	2/24	75	25.2	24.0	16.1
Mineral Creek	4000	2/29	77	22.3	20.4	19.1
Noisy Creek	3600	3/01	21	7.2	3.6	-
North Fork Jocko	6330	3/01	152	52.3	47.6	40.4
Spotted Bear Mountain	7000	3/08	65	23.9	16.4	13.6
Trinkus Lake	6100	3/08	131	53.6	49.6	37.0
Twin Creeks	3580	3/08	58	22.9	12.5	11.3
Upper Holland Lake	6200	3/08	130	49.9	51.6	30.4

CLARK FORK RIVER

Black Pine	7100	2/29	70	23.8	12.5	11.6
Black Pine Pillow	7100	2/29	SP	21.2	13.0	11.6
Combination	5600	3/03	36	10.4	4.2	-
Copper Bottom	5200	3/02	63	21.0	15.9	-
Copper Camp	6950	3/02	139	50.0	-	-
Copper Creek	5700	3/02	83	29.7	21.6	13.9
Copper Lake Creek	6100	3/02	107	41.1	32.0	-
Cotter Mine	6250	3/02	84	31.3	26.8	15.1
Coyote Hill	4200	2/29	49	15.4	11.2	10.2
El Dorado Mine	7800	3/02	82	27.2	22.3	16.8
Fred Burr Pass	8000	2/25	95	30.0	28.4	22.0
Gold Creek Lake	7200	3/02	66	22.0	16.2	12.6
Heart Lake Trail	4800	2/29	101	39.2	28.4	20.2
Hoodoo Basin	6000	2/29	171	68.6	56.2	45.6
Hoodoo Basin Pillow	6000	3/01	SP	68.5	59.9	44.6
Hoodoo Creek	5900	2/29	176	68.8	51.6	42.5
Intergaard	6450	3/01	44	12.6	8.0	7.0
Lookout	5250	2/29	134	49.3	40.0	32.3
Lubrecht Flume	4800	2/26	43	12.6	4.4	-
Lubrecht Forest No. 3	5450	2/28	42	13.4	6.3	6.6
Lubrecht Forest No. 4	4650	2/28	24	7.0	2.0	3.5
Lubrecht Forest No. 6	4040	2/28	27	7.8	2.1	3.3

SP - Snow pillow observation -water content only.



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
NAME	Elevation					Average

CLARK FORK RIVER (Continued)

Lubrecht Hydroplot	4200	2/26	36	9.7	5.1	-
North Fork Elk Creek	6250	3/02	60	19.9	10.4	-
North Fork Elk Creek Pillow	6250	3/02	SP	20.3	11.4	-
Peterson Meadows	7200	2/28	46	13.5	10.9	-
Red Lion	7100	2/24	69	20.2	15.2	13.7
Skalkaho Summit	7260	2/28	125	40.7	26.2	22.8
Slide Rock Mountain	7100	3/01	69	24.2	15.4	12.2
Southern Cross	6500	3/01	32	9.4	5.7	6.0
Storm Lake	7780	2/28	46	14.8	13.0	11.2
Stuart Mill	6500	3/01	36	10.3	5.4	5.8
Stuart Mountain	7400	3/01	108	39.8	34.2	26.6
TV Mountain	6800	2/29	84	28.7	21.4	15.0

BITTERROOT RIVER

Ambrose	6480	2/28	59	18.4	12.2	11.5
East Fork Ranger Station	5400	3/01	35	10.8	6.4	6.3
Gibbons Pass	7100	2/23	90	29.2	26.8	19.5
Lolo Pass	5230	2/29	128	46.7	32.4	29.0
Lost Horse	5940	3/02	141	50.2	36.6	28.0
Moose Creek	6200	2/29	72	25.6	19.4	14.2
Nez Perce Camp	5580	2/25	72	21.6	15.2	12.7
Nez Perce Pass	6570	2/25	72	22.7	16.6	13.8
Saddle Mountain	7940	3/01	99	31.7	28.8	21.7
Saddle Mountain Pillow	7940	3/01	SP	33.3	32.7	-
Savage Pass	6600	2/28	106	36.4	28.3	24.9
Twelvemile Creek	5600	3/02	108	37.4	24.6	-
Twelvemile Creek Pillow	5600	3/02	SP	30.4	22.6	-
Twin Lakes	6510	3/02	168	60.7	45.2	37.2
Twin Lakes Pillow	6400	3/02	SP	59.8	45.6	-

SP - Snow pillow observation - water content only.



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
NAME	Elevation					

MISSOURI RIVER BASINBEAVERHEAD RIVER

Bloody Dick	7600	3/02	59	18.1	12.2	9.2
Camp Creek	6800	2/25	33	9.9	13.3	7.8
Carter Creek	7400	2/27	23	6.1	-	3.8
Dad Creek Lake	8400	3/01	53	15.5	-	9.7
Elk Horn Springs	7800	3/02	47	12.9	9.8	8.4
Gold Stone	8100	3/02	69	22.7	17.1	12.2
Kilgore	6200	2/28	33	11.2	15.6	8.3
Lakeview Canyon	6930	2/29	42	13.3	16.2	9.7
Lakeview Ridge	7400	2/29	36	11.1	13.0	8.5
Lemhi Pass	7480	3/01	34	10.3	9.4	6.9
Lemhi Ridge	8100	3/01	48	14.3	11.4	-
Sawtelle Mountain	8715	2/28	94	35.8	39.5	-
Trail Creek	7090	3/01	37	11.2	9.0	6.3
White Pine Ridge	8850	3/01	34	7.7	-	4.0

RUBY RIVER

Branham Lakes	8850	2/25	85	29.2	33.1	-
Clover Meadow	8600	3/01	55	17.8	-	12.5
Divide	7900	3/01	44	13.1	-	8.2
Middle Mill Creek	7850	2/25	57	17.4	19.4	-
Notch	8500	3/01	51	17.3	-	10.8
Smuggler Mine	6960	2/25	34	8.8	10.5	-

BIG HOLE RIVER

Abundance Lake	8800	3/01	80	28.2	-	15.9
Calvert Creek	6450	3/03	64	19.2	12.3	-
Darkhorse Lake	8600	3/01	96	35.6	-	22.5
Foolhen	8280	3/01	65	22.2	-	14.5
Jahnke Creek	7340	3/02	59	18.4	12.1	8.2
Jahnke Lake Trail	7200	3/02	58	18.6	11.4	-
Mudd Lake	7650	3/03	96	29.2	22.4	-
Slag-A-Melt Lake	8750	3/01	85	31.0	-	-

JEFFERSON RIVER

Berry Meadow	7300	3/03	44	12.1	7.6	6.7
Copper Mountain	7700	2/29	43	12.1	10.6	8.4
Néz Perce Creek	6500	2/29	30	8.5	3.7	-
Picnic Grounds	6500	3/01	23	6.4	3.6	4.0
Pipestone Pass	7200	2/28	25	6.7	3.7	4.3
Rocker Peak	8000	3/03	67	19.6	17.9	-
Rocker Peak Pillow	8000	3/03	SP	17.2	15.9	-
Uncle Sam Gulch	6500	3/03	45	12.5	7.2	-

SP - Snow pillow observation - water content only.



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
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NAME	Elevation					
<u>MADISON RIVER</u>						
Big Springs	6500	2/28	70	25.6	26.2	17.9
Black Bear	7950	2/24	124	46.8	-	-
Black Bear Pillow	7950	2/24	SP	40.8	-	-
Black Canyon	7850	2/25	106	38.4	39.6	28.5
Black Moose	8125	2/25	133	53.2	47.6	34.0
Call Road	8050	3/01	44	12.1	-	8.4
Four Mile	6900	2/28	35	10.9	8.0	6.6
Hebgen Dam	6550	2/24	41	12.6	12.6	10.0
Island Park	6315	2/28	51	17.6	20.7	13.9
Jack Creek	7500	2/29	16	4.2	6.6	4.8
Lake Creek	6100	2/28	33	10.2	11.4	-
Latham Springs	7650	2/25	96	34.8	37.4	27.8
Lower Twin	7900	2/28	69	25.0	23.1	15.6
Lucky Dog	6900	2/25	74	27.8	32.0	21.1
Madison Plateau	7750	2/24	74	27.0	26.3	-
Madison Plateau Pillow	7750	2/24	SP	27.3	29.4	-
Norris Basin	7500	2/29	48	14.5	13.0	9.2
North Meadow	7500	2/28	37	10.9	8.0	6.2
Old Road	7250	2/25	69	23.4	34.8	24.3
Poachers Cabin	8000	2/25	98	37.2	37.8	29.0
Potomageton Park	7150	2/28	48	16.0	16.2	12.8
Sentinel Creek	8300	2/28	72	24.4	26.3	20.3
Tepee Creek	8000	2/28	51	17.3	21.0	-
Tepee Creek Pillow	8000	2/28	SP	13.3	-	-
Valley View	6500	2/28	51	19.1	22.2	13.3
West Yellowstone	6700	2/24	46	14.7	15.7	9.8
West Yellowstone Pillow	6700	2/27	SP	10.7	12.8	-
Whiskey Creek	6800	2/24	67	23.1	24.6	
Whiskey Creek Pillow	6800	2/24	SP	19.4	-	-
<u>GALLATIN RIVER</u>						
Arch Falls	7350	3/01	36	10.4	12.8	10.0
Bear Basin	8150	2/28	55	18.2	25.1	16.8
Bridger Bowl	7250	2/29	72	26.4	35.5	22.5
Bridger Bowl Pillow	7250	2/29	SP	23.0	32.7	21.8
Carrot Basin	9000	2/28	102	39.8	45.2	-
Carrot Basin Pillow	9000	2/28	SP	29.1	32.7	-
Devils Slide	8100	3/01	57	18.4	23.0	17.9
Hood Meadow	6600	3/01	30	9.2	11.2	7.8
Lick Creek	6860	3/01	31	8.6	9.3	8.7
Lick Creek Pillow	6860	3/01	SP	6.6	11.5	7.1
Little Park	7400	2/28	47	15.4	18.3	12.6
Maynard Creek	6210	2/29	53	20.2	20.5	14.2
Maynard Creek Pillow	6210	2/29	SP	11.0	11.8	-
New World	6700	2/29	29	9.0	12.6	8.6
Shower Falls	8100	3/01	67	22.5	27.8	20.8
Shower Falls Pillow	8100	3/01	SP	20.4	23.7	18.8
Twenty-One Mile	7150	2/25	59	20.1	22.7	15.4



SNOW

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MISSOURI RIVER (Main Stem)

Boulder Mountain	7950	2/29	74	25.9	23.0	13.4
Chessman Reservoir	6200	3/03	23	6.5	3.6	3.4
Deadman Creek	6450	3/02	53	16.5	11.8	9.7
Deadman Creek Pillow	6450	3/02	SP	14.5	10.5	-
Elk Peak	8000	3/01	57	19.2	18.3	13.4
Frohner Meadows	6500	2/24	38	11.7	-	-
Grasshopper	7000	3/01	24	6.6	5.2	4.3
Kings Hill	7500	2/25	62	19.2	14.0	10.7
Stemple Pass	6600	3/01	51	15.8	12.0	9.2
Ten Mile Lower	6600	3/03	39	10.5	6.6	6.0
Ten Mile Middle	6800	3/02	56	14.7	11.5	8.8
Ten Mile Upper	8000	3/02	62	17.9	15.7	11.5

SUN-TETON-MARIAS RIVERS

Badger Pass	6900	3/08	158	56.8	48.0	31.8
Blue Lake	5900	3/08	104	43.0	32.4	-
Cabin Creek	5200	2/29	34	9.0	8.1	7.0
Five-Bull	5700	3/08	38	13.3	13.9	5.7
Freight Creek	6000	3/08	81	29.1	15.2	14.1
Goat Mountain	7000	Not Measured			14.7	10.2
Mount Lockhart	6400	2/25	94	33.8	26.8	-
Mount Lockhart Pillow	6400	2/25	SP	28.3	23.9	-
Waldron	5600	2/25	52	17.8	17.6	-
Waldron Pillow	5600	2/25	SP	15.9	15.8	-
Wrong Creek	5700	3/03	73	24.4	17.6	14.3
Wrong Ridge	6800	3/02	94	29.0	24.1	19.4

JUDITH RIVER

Avalanche	7100	2/29	55	17.6	19.6	-
Big Snowy	7150	2/29	54	15.9	19.2	-
Crystal Lake	6100	2/29	36	10.1	13.5	11.1
Rock Creek	5600	2/29	28	7.8	7.4	7.5
Spur Park	8100	3/02	88	30.7	22.8	16.5
Spur Park Pillow	8100	3/02	SP	31.4	22.1	-

MUSSELSHELL RIVER

Daisy Peak	7600	2/29	54	16.9	10.4	-
Eagle Creek	7000	2/25	52	15.4	13.1	-
Forest Lake	6400	2/25	48	14.7	11.1	-
Haymaker	8050	2/28	52	17.6	11.0	-
Johnson Park	6450	2/29	33	10.1	7.4	-

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SNOW

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<u>MILK RIVER</u>						
Bear Paw Ski Area	5200	2/28	25	6.2	9.6	-
Cypress Park C	4000	3/02	18	4.0	7.3	4.0
Elkwater Lake A	4100	3/01	19	3.2	2.4	2.0
King Creek Saddle	4550	3/03	27	5.0	6.4	-
King Springs	4150	3/03	22	3.2	5.7	-
Mission Mountain	5050	3/03	26	4.4	8.7	-
Rocky Boy	4700	2/28	18	4.3	7.0	4.2
Rocky Boy Pillow	4700	2/28	SP	4.0	9.2	-
Val Marie D	2700	2/29	13	2.4	3.3	1.3
Wildhorse B	3450	3/01	5	1.8	3.8	1.5
<u>ST. MARY RIVER</u>						
Hudson Bay Divide	5800	3/03	82	27.8	21.3	16.3
<u>SASKATCHEWAN (BOW) RIVER</u>						
Bow River #1	5100	3/01	58	15.2	8.9	-
Chateau Lawn #8	5700	3/01	66	15.8	11.7	-
Mirror Lake #6	6600	2/29	69	19.0	11.8	-
Mount Eisenhower #10	5000	3/03	53	12.2	7.3	-
Upper Pipestone #2	5300	3/01	58	14.8	9.4	-
<u>UPPER YELLOWSTONE RIVER</u>						
Bald Ridge	7500	3/03	36	10.5	10.9	10.1
Camp Senia	7890	2/28	28	6.9	5.2	4.8
Canyon	7750	2/29	59	17.6	17.0	13.4
Cooke Station	8150	2/29	68	21.3	23.5	15.8
Crevice Mountain	8400	2/28	34	9.6	11.0	7.2
East Entrance	7000	3/02	48	13.9	13.5	9.4
Fisher Creek	9100	2/29	130	47.7	47.3	29.6
Fisher Creek Pillow	9100	2/29	SP	44.4	45.3	-
Grizzly Peak	8400	3/02	68	22.6	14.2	13.1
Independence	7850	2/28	57	19.2	24.3	14.1
Lake Camp	7850	2/29	43	11.3	11.8	8.2
Lupine Creek	7300	3/01	45	15.7	8.3	9.3
Mill Creek	7500	2/28	33	9.3	15.1	-
Monument Peak	8800	2/28	75	25.7	31.1	20.0
Northeast Entrance	7400	2/28	39	12.6	11.4	7.6
Northeast Entrance Pillow	7350	2/28	SP	11.2	10.9	-
Porcupine Ranger Station	6500	3/03	27	7.4	6.5	6.3
Sacajawea	6550	2/24	46	13.8	16.4	10.8
South Fork Shields	8100	3/03	65	21.5	23.7	19.0
Sylvan Pass	7100	3/02	59	18.7	-	11.6
Thumb Divide	7900	2/29	82	25.2	26.7	19.0
Timberline Creek	8850	2/28	57	18.0	13.8	11.5
White Mill	8700	2/29	102	33.1	35.9	20.8
Wolverine	7650	3/01	58	18.0	12.2	-



Agencies and Organizations Cooperating in Montana Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Energy, Mines and Resources, Alberta
Water Investigations Branch, Department of Lands,
Forests, and Water Resources, British Columbia

Federal:

Department of the Army
Corps of Engineers
U.S. Department of Agriculture
Forest Service
Soil Conservation Service
U.S. Department of Commerce
NOAA, National Weather Service
U.S. Department of the Interior
Bonneville Power Administration
Bureau of Indian Affairs
Bureau of Reclamation
Bureau of Sports Fisheries and Wildlife
Geological Survey
National Park Service

STATE

Montana Conservation Districts
Montana Water Resources Board
Montana State University - Agricultural Experiment
Station
North Montana Branch Station - Agricultural Experiment
Station
University of Montana - School of Forestry

PRIVATE

Montana Power Company

Other organizations and individuals furnish valuable
information for snow survey reports. Their cooperation
is gratefully acknowledged.

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with the Snow Survey"*